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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,773	06/30/2003	Robert C. Knauerhase	110466-152112	1902

31817 7590 07/25/2007

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EXAMINER	
GEREZGIHER, YEMANE M	

ART UNIT	PAPER NUMBER
2144	

MAIL DATE	DELIVERY MODE
07/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/611,773	KNAUERHASE ET AL.	
	Examiner	Art Unit	
	Yemane M. Gerezgiher	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 May 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8 and 10-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 10-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The response filed on May 9, 2007 has been entered and made of record. Claims 1-8 and 9-30 are now pending in this application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

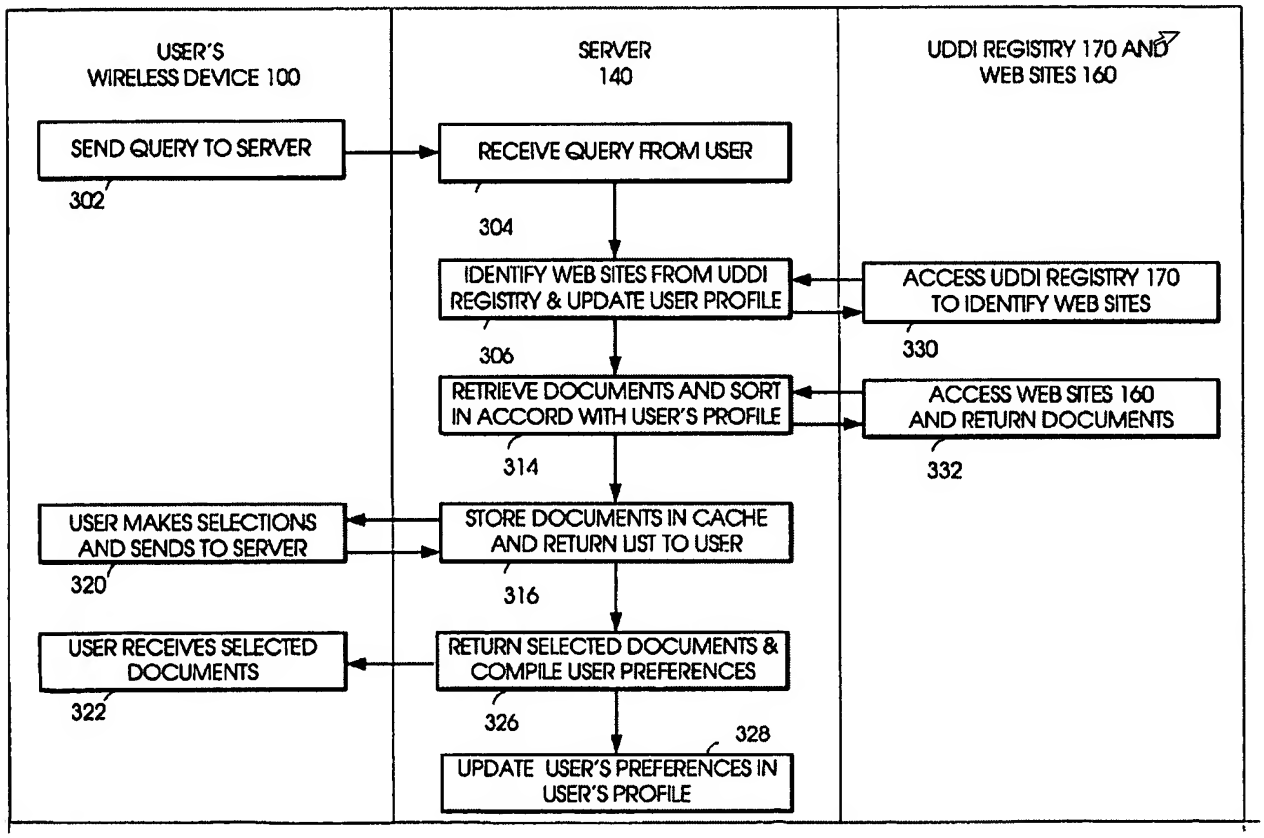
> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 3-6, 8, 10-18 22, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nykanen (U.S. Patent Number 7,155,425) in view of Dong et al (U.S. Patent Number 6,757,706) hereinafter referred to as Dong.

As per claims 1 and 22, Nykanen disclosed a method for an intermediary to provide responses to discovery requests for services when a registry of services is unavailable (abstract and Column 2, Lines 7-41), comprising: receiving from a client a discovery request for a service (Fig. 4B, # 302-304, and Column 2, Lines 7-10, intermediary proxy server receiving a discovery inquiry from a client terminal); determining the registry is unavailable (Column 9, Line 13, offline queries to the UDDI registry); altering the discovery request into a

modified request appearing to originate from the intermediary (Fig. 4B (also disclosed below), #306, intermediary proxy server arrange the received discovery query to the registry); and queuing the modified discovery request for delivery to the registry when it becomes available (Fig. 4B, # 330, Column 2, Line 66 through Column 3, Line 7 and Column 14, Lines 35-60).

FIG. 4B



Nykanen substantially disclosed the invention as claimed. However, Nykanen did not explicitly teach the function of determining by an

intermediary whether registry is unavailable, the determining including determining an online or offline client state of the client indicative of whether the client is communicatively coupled with the registry and queuing a modified request for delivery to the registry when it comes available. However as evidenced by the teachings of Dong, determining by an intermediary whether registry is unavailable, the determining including determining an online or offline client state of the client indicative of whether the client is communicatively coupled with the registry and queuing a modified request for delivery to the registry when it comes available was known in the art at the time the invention was made (see Dong, abstract, Column 2, Line 19 through Column 3, Line 42, Column 8, Lines 31-53, Column 10, Lines 5-14, Column 11, Lines 42-67, Column 12, Line 43 through Column 13, Line 30). Thus, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the teachings of Dong and have modified the teachings of Nykanen in order to "provide responses to requests of an off-line client" (Dong, Column 2, Lines 25-29) and "greatly enhancing mobility of the client" (Dong, Column 3, Lines 34-35) because "the off-line state is no longer an obstacle to the server and the client" (Dong, Column 3, Lines 36-37).

As per claims 3 and 24, The already combined teachings of Dong and Nykanen disclosed determining the registry is available (Nykanen, Column 14, Lines 25-40); forwarding, by the intermediary device, the modified request to

the registry (Nykanen Fig. 4B, # 306 → 330, retransmitting discovery query request received from a user to the registry, and Dong, Column 11, Lines 42-55); receiving by the intermediary device, in response, a reply from the registry for the forwarded discovery request (Nykanen Fig. 4B, # 306, result received from the registry at the proxy/intermediary server and Dong Column 12, Lines 4-15); altering, by the intermediary device, the received reply into a modified reply appearing to originate from the intermediary; and sending, by the intermediary device, the modified reply to the client (Nykanen Column 14, Lines 25-60; Dong, Column 9, Lines 51-66 and Column 13, Lines 5-13).

As per claims 4, 5, 13 and 25, the already combined teachings of Dong and Nykanen disclosed that the reply from the registry includes an identification of a service provider available to perform the requested service (Nykanen Column 3, Lines 36-38 and Column 14, Lines 44-50). Nykanen further disclosed receiving, by the intermediary device, at least one service request from the client for utilizing the service (Nykanen Fig. 4B, # 320 and Column 14, Lines 60-64 and Dong, Column 8, Lines 39-53 and Column 11, Lines 46-54); altering, by the intermediary device, the service request into a modified service request appearing to originate from the intermediary (Dong, Column 9, Lines 51-66 and Column 13, Lines 5-13); and forwarding, by the intermediary device, the modified service request to the service provider available to perform the requested service (Nykanen Fig. 4B and Column 14, Lines 33-67; Dong, Column 8, Lines 39-53 and Column 11, Lines 46-54).

As per claims 6 and 16-18, the already combined teachings of Dong and Nykanen substantially disclosed the invention as claimed. However, the combined teachings were silent about timing by the intermediary device a duration of no response from the server (service provider) and when a predetermined threshold reaches, indicating availability or unavailability of service by replying an error message to the requesting client and allowing a client to retry the request. However, such a future was well known in the art at the time the invention was made. For example, see Baker, USPAT 7035921, Abstract Figs.2-5 and Column 2, Lines 8-44). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the commonly known feature as described by Baker and have modified the already combined teachings of Dong and Nykanen in order "to avoid waiting for an unavailable server" and further in order to "help provide more user-friendly recovery information for addressing failed or otherwise unavailable servers" (see Baker, Column 2, Lines 8-12).

As per claim 8, Nykanen disclosed that the discovery request comprises a UDDI discovery request (Abstract and Column 2, Lines 7-10).

As per claim 10, Nykanen disclosed receiving at least one successive request from the client for the service (Fig. 4B, # 320); if in the online client state, replying to the client that the service is no longer provided (Column 9, Line 13 (client on-line and offline status), Fig. 4B, # 302-304, and Column 2, Lines 7-10).

As per claims 11 and 12, The already combined teachings of Dong and Nykanen disclosed receiving, by the intermediary device, at least one successive request from the client identifying the service (Nykanen Fig. 4B, # 320, Column 3, Lines 36-38 and Column 14, Lines 44-50, identified web sites/providers; Dong, Column 2, Lines 36-58); and replying, by the intermediary device, to the client that the service is no longer provided (Nykanen Column 9, Line 13 (client on-line and offline status), Fig. 4B, # 302-304, and Column 2, Lines 7-10), wherein the client is configured to repeat its discovery request for the service responsive to the reply the service is no longer provided (Column 3, Lines 4-40).

As per claim 14, The already combined teachings of Dong and Nykanen disclosed at least the client and intermediary utilize an asynchronous communication protocol (Column 1, Line 11 through Column 2, Line 65, since the teachings of Nykanen disclosed caching and/or queuing the queries or interactions of client with the registry via an intermediary, the communication protocol is implicitly asynchronous and see Dong, Column 5, Lines 39-40, asynchronous communication flow).

As per claim 15, Nykanen disclosed wherein the client performs another task while waiting for a response to an asynchronous discovery request (Column 5, Lines 12-67, performing web based interaction using protocols and platforms that implicitly allow multi-threading/multitasking and see Dong, Column 5, Lines 39-40, asynchronous communication).

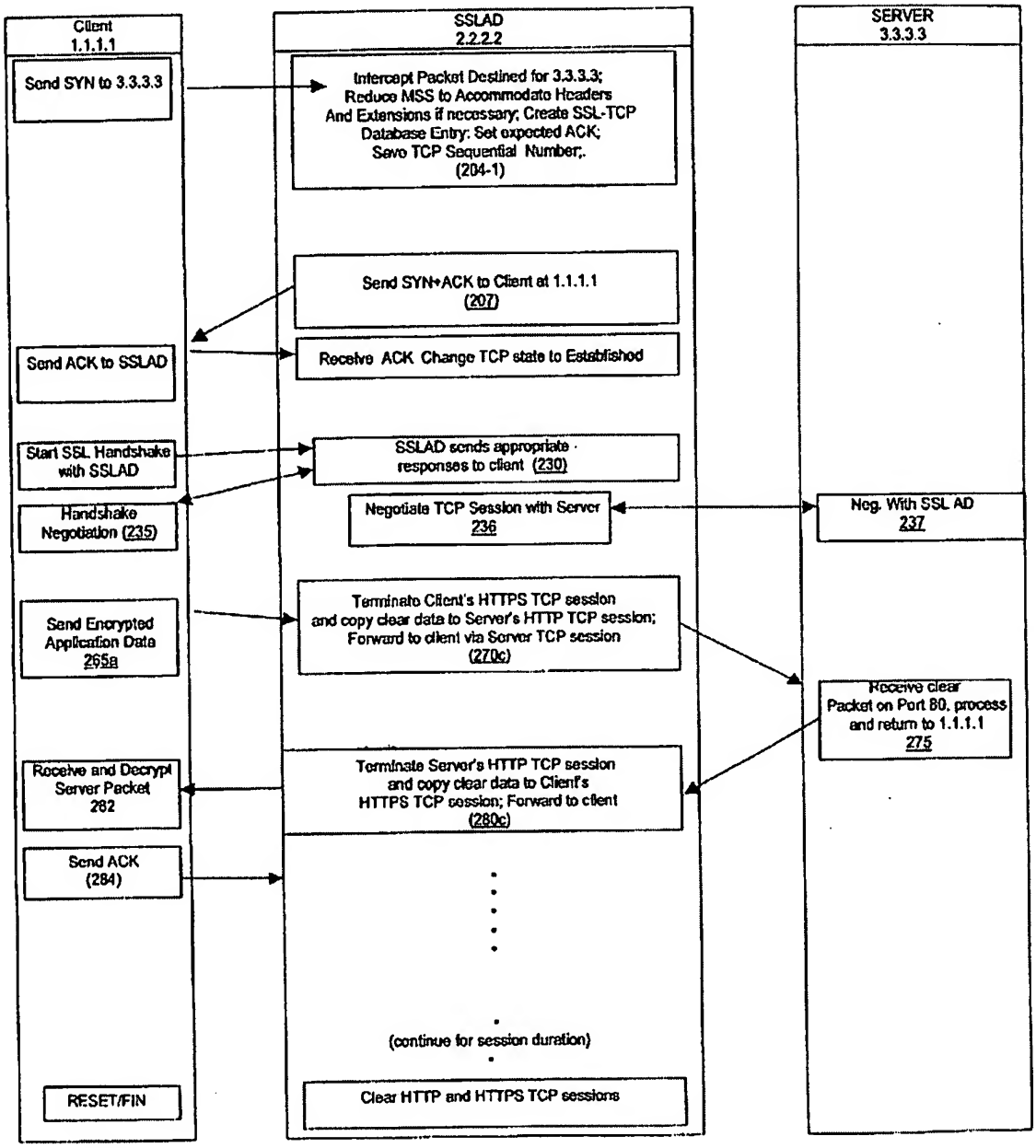
4. Claims 2, 7, 19-21, 23, 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nykanen (U.S. Patent Number 7,155,425) in view of Dong et al (U.S. Patent Number 6,757,706) and further in view of Freed et al. (U.S. Patent Number 7,149,892) hereinafter referred to as Freed.

Claims 2, 7, 19, 23, 26 and 29, recite limitations substantially similar as recited in claims 1 and 22. Thus, these claims (19, 26 and 29) are rejected with the same rationale claims 1 and 22 are rejected above. The already combined teachings of Dong and Nykanen substantially disclosed the invention as claimed. The already combined teachings further disclosed "When the client (92) is off-line, the network traffic redirector (701) can redirect requests to the off-line server (702) and send responses that come from the off-line server (702) to the client (92) so that the client (92) can continue to work. It looks like the client (92) were on-line" (See Dong, Column 9, Lines 39-43 and Column 15, Lines 29-31). The above quoted functional limitations of Dong implicitly disclosed that no negative message (message indicating client is offline or not in session over the network) was sent to the client when in fact there was no on-line session connection making "it look like the client were on-line". Given the cited fact, one could arguably equate the teachings with tricking the client to look like it is online as equivalent with the claimed limitation. Nevertheless, one could argue the already combined teachings of Dong and Nykanen did not explicitly recite, providing a dummy response to the request indicating the

service is available or in the alternative language as described in claim 19, Nykanen was silent about "replying to the client that a pseudo service provider is available to perform the requested service".

However, such a feature was known in the art at the time the invention was made. For example in a skill based routing, a client's request for service is received by a proxy device, queued at the proxy device and an acknowledgment is sent to the requesting client indicating the service is available when in fact sometimes service providing agents are temporarily unavailable to process and service the request. Furthermore, as evidenced by the teachings of the prior art, Freed disclosed an intermediary device (Fig. 7 (also disclosed below), # SSLAD) intercepting a request from a client intended to a remote server (Fig. 7, Server); the intermediary device intercepting the request and sending a dummy ACK response to the client called TCP ACK acceleration (duping the client that server is available and ready to process the request) and the intermediary device later retransmitting the request originated from the client by negotiating a TCP session with the server (see Fig. 7 and Column 11, Lines 51-67). Thus, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the commonly known feature disclosed above in the teachings of Freed related to intermediary accelerator device and have modified the already combined teachings of Dong and Nykanen in order to facilitate communication traffic between the client and the server (Freed, Column 3, Lines 62-67).

FIGURE 7 (Full TCP Proxy Mode)



As per claims 20 and 27: The already combine teachings of Freed Dong and Nykanen disclosed receiving, by the intermediary device, a reply from the registry responsive to the modified discovery request (Nykanen Fig. 7, # ←330, Fig. 4B, # 306, result received from the registry at the proxy/intermediary

server and Dong Column 12, Lines 4-15), the reply identifying a service provider available to perform the requested service (Column 3, Lines 36-38 and Column 14, Lines 44-50, identified web sites/providers); receiving, by the intermediary device, a service request from the client for utilizing the service (Nykanen Fig. 4B, # 320 and Column 14, Lines 60-64 and Dong, Column 8, Lines 39-53 and Column 11, Lines 46-54); altering, by the intermediary device, the service request into a modified service request appearing to originate from the intermediary; and submitting, by the intermediary device, the modified service request to the service provider (Nykanen Fig. 4B and Column 14, Lines 33-67; Dong, Column 8, Lines 39-53 and Column 11, Lines 46-54).

As per claims 21 and 28, The already combine teachings of Freed Dong and Nykanen disclosed receiving, by the intermediary device, a response from the service provider; altering, by the intermediary device, the response into a modified response appearing to originate from the intermediary; and sending, by the intermediary device, the modified response to the client (Nykanen Fig. 4B, Column 14, Lines 35-64 and Dong, Column 9, Lines 51-66 and Column 13, Lines 5-13).

As per claim 30, The already combine teachings of Freed Dong and Nykanen disclosed that the intermediary is further configured to forward discovery requests to a registry when the client obtains an online state (Column 9, Line 13 (client on-line and offline status), Fig. 4B, # 302-304, and

Column 2, Lines 7-10, intermediary proxy server receiving a discovery inquiry from a client terminal; forwarding the request to a registry, see Fig. 4B, # 330, Column 2, Line 66 through Column 3, Line 7 and Column 14, Lines 35-60; Furthermore Dong disclosed forwarding the queued client request to the server when the client obtains an online state, see Dong Column 11, Lines 46-54).

Response to Arguments

5. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In

no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yemane M. Gerezgiher whose telephone number is (571) 272-3927. The examiner can normally be reached on 9:00 AM - 6:00 PM Mon - Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Y. Gerezgiher
Patent Examiner
TC: 2100, AU: 2144